

**Use of id semiconductor materials as chemical sensing materials, produced and operated close to room temperature****Publication number:** JP2005510711T**Publication date:** 2005-04-21**Inventor:****Applicant:****Classification:****- international:** G01N27/12; G01N27/12; (IPC1-7): G01N27/12; G01N27/04; G01N27/22**- european:** G01N27/12**Application number:** JP20030547926T 20021126**Priority number(s):** EP20010128064 20011126; WO2002EP13309 20021126**Also published as:**

WO03046536 (A1)



US2005072213 (A1)



CN1618014 (A)



CA2468251 (A1)



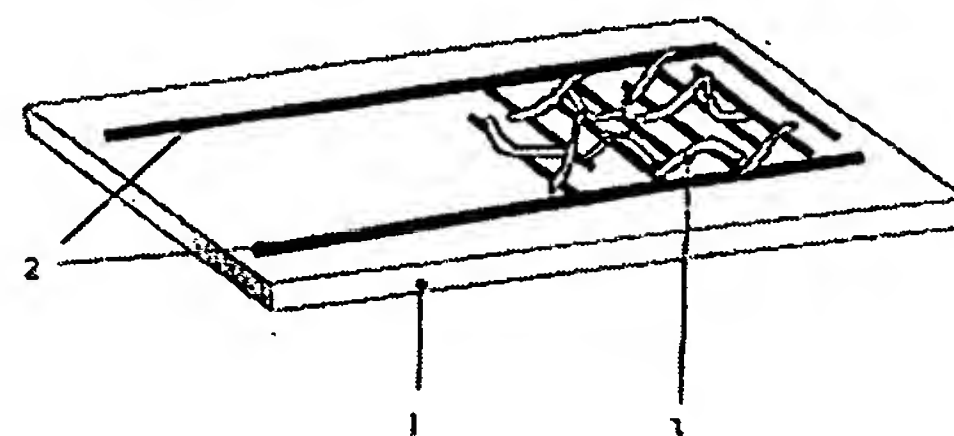
AU2002354154 (A1)

[Report a data error here](#)

Abstract not available for JP2005510711T

Abstract of corresponding document: US2005072213

The application relates to a chemical sensor device comprising a substrate (1), a sensor medium (3) formed on the substrate, the sensor medium comprising one-dimensional nanoparticles, wherein the one-dimensional nanoparticles essentially consist of a semiconducting  $A_xB_y$  compound, e.g.  $V_2O_5$  and detection means (2) for detecting a change of a physical property of the sensor medium e.g. conductivity. The porosity of the sensor medium supports a fast access of the analyte to the sensing material and therefore a fast response of the sensor. The selectivity and sensitivity of the sensor can be tailored by doping the one-dimensional nanoscale material with different dopants or by varying the dopant concentration. Sensitivity of the sensor device to an analyte, preferably an amine, can be increased by increasing relative humidity of the sample to at least 5%.



Data supplied from the esp@cenet database - Worldwide